

**figure 15-9**

Energies of a simple harmonic oscillator. (a) Potential energy (---), kinetic energy (- · -), and total energy (—) plotted as a function of time. (b) Potential, kinetic, and total energy plotted as a function of displacement from the equilibrium position. Compare with Fig. 8-4.

David Halliday and Robert Resnick, *Physics*, 3rd ed., Wiley: New York, 1978.